

NANOMETER-SCALE SEMICONDUCTOR DEVICES AND METHOD OF MAKING

ABSTRACT

5 A semiconductor device including a substrate having a dopant of a first polarity, a first semiconducting structure including a dopant of a second polarity disposed over the substrate, and having substantially planar top and side surfaces. The semiconductor device includes a first junction, formed
10 between the first semiconducting structure and the substrate, having an area wherein at least one lateral dimension is less than about 75 nanometers.